THAILAND

COUNTRY PROFILE

**IMPLEMENTATION OF AGENDA 21:
REVIEW OF PROGRESS MADE SINCE THE
UNITED NATIONS CONFERENCE ON
ENVIRONMENT AND DEVELOPMENT, 1992**

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THAILAND

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All statistics are rendered as provided by the respective Governments.

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ACRONYMS

APELL	Awareness and Preparedness for Emergencies at Local Level
CFC	chlorofluorocarbon
CGIAR	Consultative Group on International Agriculture Research
CILSS	Permanent Inter-State Committee on Drought Control in the Sahel
EEZ	exclusive economic zone
ECA	Economic Commission for Africa
ECE	Economic Commission for Europe
ECLAC	Economic Commission for Latin America and the Caribbean
ELCI	Environmental Liaison Centre International
EMINWA	environmentally sound management of inland water
ESCAP	Economic and Social Commission for Asia and the Pacific
ESCWA	Economic and Social Commission for Western Asia
FAO	Food and Agriculture Organization of the United Nations
GATT	General Agreement on Tariffs and Trade
GAW	Global Atmosphere Watch (WMO)
GEF	Global Environment Facility
GEMS	Global Environmental Monitoring System (UNEP)
GEMS/WATER	Global Water Quality Monitoring Programme
GESAMP	Joint Group of Experts on the Scientific Aspects of Marine Pollution
GIPME	Global Investigation of Pollution in Marine Environment (UNESCO)
GIS	Geographical Information System
GLOBE	Global Legislators Organisation for a Balanced Environment
GOS	Global Observing System (WMO/WWW)
GRID	Global Resource Information Database
GSP	generalized system of preferences
HIV	human immunodeficiency virus
IAEA	International Atomic Energy Agency
IAP-WASAD	International Action Programme on Water and Sustainable Agricultural Development
IARC	International Agency for Research on Cancer
IBSRAM	International Board of Soil Resources and Management
ICCA	International Council of Chemical Associations
ICES	International Council for the Exploration of the Sea
ICPIC	International Cleaner Production Information Clearing House
ICSC	International Civil Service Commission
ICSU	International Council of Scientific Unions
IEEA	Integrated environmental and economic accounting
IFAD	International Fund for Agricultural Development
IGADD	Intergovernmental Authority for Drought and Development
IGBP	International Geosphere-Biosphere Programme (ICSU)
IGBP/START	International Geosphere-Biosphere Programme/Global Change System for Analysis, Research and Training
ILO	International Labour Organisation
IMF	International Monetary Fund
IMO	International Maritime Organization
INFOTERRA	International Environment Information system (UNEP)
IOC	Intergovernmental Oceanographic Commission
IPCC	Intergovernmental Panel on Climate Change
IPCS	International Programme on Chemical Safety
IPM	integrated pest management
IRPTC	International Register of Potentially Toxic Chemicals
ITC	International Tin Council
ITTO	International Tropical Timber Organization

ACRONYMS (Cont'd)

IUCN	International Union for Conservation of Nature and Natural Resources
MARPOL	International Convention for the Prevention of Pollution from Ships
OECD	Organisation for Economic Cooperation and Development
PGRFA	plant genetic resources for agriculture
PIC	prior informed consent procedure
SADCC	South African Development Co-ordination Conference
SARD	sustainable agriculture and rural development
UNCTAD	United Nations Conference on Trade and Development
UNDP	United Nations Development Programme
UNDRO	Office of the United Nations Disaster Relief Coordinator
UNEP	United Nations Environment Programme
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNFPA	United Nations Population Fund
UNICEF	United Nations Children's Fund
UNIDO	United Nations Industrial Development Organization
UNU	United Nations University
WCP	World Climate Programme (WMO/UNEP/ICSU/UNESCO)
WFC	World Food Council
WHO	World Health Organization
WMO	World Meteorological Organization
WWF	World Wide Fund for Nature (also called World Wildlife Fund)
WWW	World Weather Watch (WMO)

FACT SHEET

NAME OF COUNTRY: Thailand

1. Name of Key National Sustainable Development Coordination Mechanism(s)/Council(s).
The National Economic and Social Development Board (NESDB), and the National Environmental Board (NEB).

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2. Membership/Composition/Chairperson:

2a. List of ministries and agencies involved: The NESDB's Chairman is a distinguished elder statesman. Five ex-officio members include the Governor of the Bank of Thailand, Secretary General of the Civil Service Commission, Director of the Bureau of the Budget, Director General of the Fiscal Policy Office and the Secretary General of NESDB. Nine members are represented from the private sector (many of whom have held senior government positions). NEB/Chairman Prime Minister; Vice-Chairmen: a Deputy Prime Minister and the Minister of Science, Technology and the Environment (MOSTE); twenty members: Ministers of Defense, Finance, Agriculture, Transport and Communications, Interior, Education, Public Health, Industry; Secretaries-General of NESDB and the Board of Investment, Director of the Budget Bureau, and up to eight other persons qualified in environmental matters. The Permanent Secretary of MOSTE is a member of the NEB and serves as its Secretary.

2b. Names of para-statal bodies and institutions involved, as well as participating of academic and private sector bodies: NEB: Eight persons qualified in environmental matters (e.g., academics, engineers, entrepreneurs, and community leaders), at least half of whom shall be representatives of the private sector). In addition to the Ministers and officials listed above, the current NEB Board includes the Chairman and the Director General of the Thailand Environment Institute (TEI), the Director of Thailand's National Commission on Women's Affairs, the President of an oil company, the Secretary General of the Population and Community Development Association, the Chairman of the Society for the Conservation of National Treasures and Environment, a senior civil servant in the Ministry of University Affairs, a distinguished professor of environmental engineering, an attorney and a Vice President of the Chulabhorn Research Institute.

2c. Names of non-governmental organizations involved: NGOs representing a wide cross-section of expert training and experience in social and economic affairs, community organizations, public health, policy analysis and governance. NGOs are consulted frequently regarding environmental development policies even though they are not officially represented on the NESDB or NEB.

3. Mandate role of above mechanism/council: For ove 40 years, the NESDB's mandate has been to supply social and economic data to Government, prepare/draft comprehensive National Economic and Social Development Plans for Cabinet and Parliamentary approval (usually at 5-year intervals), evaluate progress compared with Plan targets, and undertake such special analyses as may be assigned to it from time to time. NEB's responsibilities are focused on improving environmental management within the larger framework of sustainable development drafted by NESDB; to submit policies and plans for enhancement and conservation of environment quality for Cabinet approval; to prescribe environmental quality standards; to consider and give approval to Changwat (provincial) Action Plans; to approve programmes to mitigate hazards caused by pollution; to specify measures to strengthen coordination among government agencies (and the private sector) concerning environmental quality, to submit periodic reports on environmental conditions to the Cabinet, and to perform other functions in support of sound environmental management policies.

4. If available, attach a diagram (organization chart) showing national coordination structure and linkages between ministries:

Thailand

AGENDA 21 CHAPTER 2: **INTERNATIONAL COOPERATION TO ACCELERATE SUSTAINABLE DEVELOPMENT IN DEVELOPING COUNTRIES AND RELATED DOMESTIC POLICIES (with special emphasis on TRADE)**

NATIONAL PRIORITY:	**Very High**	
STATUS REPORT: Thailand is an active participant in many international agencies and discussions concerned with environment, development, trade and peace-keeping issues. Thailand was an early member of the Bretton Woods Institutions and the United Nations. It is currently an active member of all relevant United Nations organizations, has long been the site of Regional UN offices (ESCAP), is a founding member of ASEAN, currently serves on the CSD, and has provided many senior officers to these organizations (e.g. currently Asia Regional Director of UNEP, Chairman of WTO committee on Agriculture, and others). Thailand has long favored an open international trading system, provided that developing nations are given equal opportunities to compete and grow.		

Cross-Sectoral Issues

1. **Decision-Making Structure:** No information.

2. **Capacity-Building/Technology Issues:** No information.

3. **Major Groups:** No information.

4. **Finance:** No information.

5. **Regional/International Cooperation:** No information.

STATISTICAL DATA/INDICATORS

AGENDA 21 CHAPTER 3: COMBATING POVERTY

NATIONAL PRIORITY:	High	
STATUS REPORT: • Focus of national strategy The Human Development Report (1995) reported that in 1990, 7% of the urban population and 29% of the rural population lived in poverty. There is no specific legislation for this area in force, but the country's Economic and Social Development Plans have been aimed at poverty reduction, especially during the last 20-25 years. Progress made in this area during the Seventh Plan was evaluated formally in 1995. The Eighth Plan has been approved and contains specific targets for the further reduction of both urban and rural poverty. The Eighth Plan's formulation was initiated on a "bottom-up" consultation basis to emphasize the participation of poor communities and women in problem solving. • Highlight activities aimed at the poor and linkages to the environment Consult Plan VIII and our long-term Environment Quality Promotion strategy. See also RTG report to Social Summit, Copenhagen, 1995.		

Cross-Sectoral Issues

1. **Decision-Making Structure:** No information.

2. **Capacity-Building/Technology Issues:** No information.

3. **Major Groups:** No information.

4. **Finance:** No information.

5. **Regional/International Cooperation:** No information.
NB: Developed countries, where domestic poverty alleviation is not a major concern may wish to briefly describe their position regarding global poverty alleviation.

STATISTICAL DATA/INDICATORS

	1985	1990	1992	Latest 199_	
Unemployment (%)					
Population living in absolute poverty					
Public spending on social sector %					
Other data					

AGENDA 21 CHAPTER 4: CHANGING CONSUMPTION PATTERNS

NATIONAL PRIORITY: Medium

STATUS REPORT:

• National policy objectives/focus

There has been no debate on consumption and production at the national level; as income distribution is of concern only within some social classes, excessive consumption has not yet become a major topic of public debate. Tax structures have been designed to weigh heavily on luxury items (e.g. automobile imports are taxed at rates of 100% or higher, both as luxury items and as a potential source of environmental pollution and congestion. Concern for energy conservation is growing. In terms of "material efficiency", producers are affected by government policies. In terms of "energy efficiency" and "waste reduction, reuse and recycling" producers, local authorities, households and the central government are targeted by new policies. The central government and NGOs assume primary responsibility for all policy and measures under this programme area. Producers assume primary responsibility for the issue of "economic incentives/disincentives". The impact of "improving understanding and analysis", "applying tools for modifying behaviour" and "monitoring, evaluating and reviewing performance" is expected to be significant for producers, local authorities, households, NGOs and the central government. In the context of this chapter, special attention has been given to the needs of the poor. The Royal Thai Government recognizes that water and sanitation must be provided to low-income households and communities at preferential rates, partially subsidized by higher charges for businesses and high-income households.

Two ongoing and expanding Government initiatives intended to change consumption patterns include a general public information campaign by the Department of Environmental Quality Promotion (DEQP) of the Ministry of Science, Technology and Environment (MOSTE); and the National Energy Conservation Programme.

• National targets

No information.

Cross-Sectoral Issues

1. **Decision-Making Structure:** No information.

2. **Capacity-Building/Technology Issues:** No information.

3. **Major Groups:** No information.

4. **Finance:** No information.

5. **Regional/International Cooperation:** No information.

STATISTICAL DATA/INDICATORS					
	1985	1990	1992	Latest 199_	
GDP per capita (current US$)					
Real GDP growth (%)					
Annual energy consumption per capita (Kg. of oil equivalent per capita)					
Motor vehicles in use per 1000 inhabitants					
Other data					

Government policies affecting consumption and production.

1. Goals and Agents (Stakeholders)

Indicate with a (X) those agents which your Governments policies are meant most to influence.

Agents / Goals	Producers	Local authorities	Central Government	Households	Civil society
Material efficiency	X		X		
Energy efficiency:					
Transport	X	X	X	X	
Housing	X	X	X	X	
Other	X				
Waste:					
Reduce	X	X	X	X	
Reuse	X	X	X	X	
Recycle	X	X	X	X	

Comments: The RTG has assumed primary responsibility for measures to encourage environmentally sound production and consumption through sustainable economic growth and the reduction of poverty. The Government receives and welcomes active coaching and participation by NGOs and other institutions of civil society. Policies are designed, monitored and updated to influence the behaviour of producers, households and the Government's activities at local and national levels.

2. Means & Measures and Agents (Stakeholders)

Indicate with an (R) those agents who assume primary responsibility for any of the policy measures indicated; indicate with an (I) the agents for which the impact is expected to be especially significant.

Means & Measures / Agents	Producers	Local authorities	Central Government	House-holds	Civil Society
Improving understanding and analysis					
Information and education (e.g., radio/TV/press)	I	I	I,R	I	R
Research	I		I,R		R
Evaluating environmental claims		I	I,R		R
Form partnerships	I		I,R		I,R
Applying tools for modifying behaviour					
Community based strategies		I	I	I	R,I
Social incentives/disincentives (e.g., ecolabelling)			R	I	R
Regulatory instruments	I	I	I,R		
Economic incentives/disincentives	I,R		R	I	
Voluntary agreements of producer responsibility for aspects of product life cycle	I		R		R
Provision of enabling facilities and infrastructure (e.g., transportation alternatives, recycling)	I	I,R	I,R	I	I
Procurement policy	I		I,R	I	
Monitoring, evaluating and reviewing performance					
Action campaign	I	I	I,R	I	R
Other (specify)					

Comments:

AGENDA 21 CHAPTER 5: DEMOGRAPHIC DYNAMICS AND SUSTAINABILITY

NATIONAL PRIORITY: High

STATUS REPORT: Thailand is considered to be at the forefront of persuasive, imaginative and effective family planning programmes (See Thailand's national report submitted to the Cairo Conference). NESDB considers demographic trends when preparing Five-Year Plans for sustainable social and economic development. Plans include policies to reduce population growth rates and manage geographic distribution. Thai Plans recognize the critical importance of providing educational opportunities for women.

Regarding demographic dynamics and sustainability, the Ministry of Public Health, working in conjunction with other organizations, implements programmes relevant to demographic change in the following areas:

1. Assessing the effects of demographic changes on development programmes. An assessment of changes in the age structure and its impact on the health care system has taken place. Consequently, health care policies and programmes have been formulated. For example: health insurance schemes covering all aspects of preventive, rehabilitative and curative care services are provided, especially to low income groups, the elderly, children, the handicapped and other underprivileged groups.

2. Strengthening preventive and curative health facilities and services including:

2.1 Health service facilities at all levels have been upgraded and improved in terms of their quality and efficiency. In Thailand, there are 9,239 Sub-district Health Centres (covering 99.4 per cent of total sub-districts); 708 District Hospitals (covering 91.6 of total districts); 75 General Hospitals; and 17 Regional Hospitals and Medical Centres. In addition, there are hospitals for which other organizations are responsible, e.g. Ministry of University Affairs, Ministry of Defense and State Enterprises. Private hospitals provide about 19 per cent of total public services (in terms of the number of beds provided).

2.2 Preventive heath care programmes emphasizing reproductive health care have been launched. These programmes provide comprehensive health care, including pre-natal care; education and information on health and responsible parenthood; the opportunity for all women to breast-feed; health care for all children; and measures to reduce the risk of maternal and child mortality and morbidity.

3. The main organizations which disseminate information concerning demographic trends and health status to the public regularly include Mahidol University, Chulalongkorn University and the Ministry of Public Health.

4. Providing good-quality family planning services and family planning counselling and its integration in the reproductive health context.

Cross-Sectoral Issues

1. Decision-Making Structure: NESDB and the Ministry of Public Health (MOPH) are most directly concerned with demographic issues. NESDB and MOSTE are the principal government agencies responsible for the integration of all aspects of the population, environment and development. The Ministry of Public Health is involved in providing family planning and maternal and child health services. In addition, NGOs are actively involved in family planning and developing public awareness programmes. The National Commission on Women's Affairs, which reports directly to the Prime Minister, has introduced a Gender-Based Analysis Methodology, for use in sustainable development planning.

2. Capacity-Building/Technology Issues: Educational materials dealing with population and development are being developed through working with officials at central and provincial levels of MOPH.

3. Major Groups: The Population and Community Development Association, Planned Parenthood Association of Thailand, and other NGOs, work on population issues with strong governmental support. The Twenty Year Perspective Policies and Plans for the Developmental of Women (1992-2011) aims to involve women in decision-making at all levels, and particularly in sustainable development, through three major initiatives: economic participation, social participation, and political and administrative participation.

4. Finance: NGOs working on population issues receive financial support from the Government and international organizations. However, financial assistance from international agencies has decreased during the last few years.

5. Regional/International Cooperation: Partners in Population and Development, a South-South Initiative, was created to coordinate a technical cooperation programme among 10 member countries, including training/study tours and technical assistance.

STATISTICAL DATA/INDICATORS

	1990	1993	Latest 199_	
Population (Thousands) mid-year estimates				
Annual rate of increase (1990-1993)				
Surface area (Km^2)				
Population density (people/Km^2)				
Other data				

AGENDA 21 CHAPTER 6: PROTECTING AND PROMOTING HUMAN HEALTH

NATIONAL PRIORITY:

STATUS REPORT: The Ministry of Public Health (MOPH) implements the following programmes in collaboration with other organizations:

1. Primary health care and health education. The Primary Health Care Programme was launched in 1977 as the main public health strategy to reach the goal of "Health for All by the Year 2000". The programme is based on community involvement, utilization of appropriate technology, intersectoral collaboration and equity in the health system. The programme aims to satisfy basic community health needs for clean water, sanitation, adequate and balanced nutrition, food safety, and maternal and child health care. It works through village health volunteers and receives government support through health centres, district hospitals, and provincial health officials. The programme covers all villages and communities in rural, sub-urban and urban areas. About 65,170 Community Primary Health Care Centres have been established and 719,500 Village Health Volunteers have been trained all over the country. In 1993, a set of practical and appropriate health indicators was developed to monitor the Health for All goal at the community level. So far, about 80 percent of communities have passed the minimum criteria. Thailand is expected to achieve the goal of "Health for All" by the Year 1999.

2. Control of Communicable Diseases. Most childhood diseases that are vaccine preventable (e.g. poliomyelitis tetanus neonatorum) have declined dramatically during the past decades due to successful immunization programmes, while other communicable diseases (e.g. diarrhoea, dengue fever/dengue hemorrhagic fever, and acute respiratory tract infection) are still common. The prevalence of adult diseases (e.g venereal diseases) has decreased due to a condom promotion programme. On the other hand, some diseases have reemerged (e.g. tuberculosis because of HIV/AIDS, and malaria and filariasis which foreign workers imported from endemic areas). Other diseases that need to be eradicated before the year 2000 include rabies and leprosy. HIV/AIDS is a serious problem to which the government has given top priority. MOPH, in conjunction with NGOs, has adjusted its strategies to prevent and control HIV/AIDS by focusing on strengthening individual and community capacity at all levels, especially in villages, to reduce the personal and social impacts of HIV. Emphasis is given to advocacy and information dissemination in order to help people avoid risky behaviour, to reduce the number of new HIV infections, and to lower the prevalence of the disease in women and their offspring.

3. Health Protection for s High Risk Group. Government support gives top priority to health insurance programmes for lower income groups, children under 12, disabled persons, and the elderly.

4. Health as Quality of Life. A programme to promote better health and quality of life of urban dwellers, especially under privileged groups, has been implemented. Intersectoral committees on pollution prevention and control at provincial levels have been established. Programmes to strengthen local authorities' capacity, especially in municipalities, were created to encourage community participation in supporting environmental health.

5. Environmental Hazardous Health Protection. Programmes have been created to reduce environmental health risks from pollution and to promote environmental health protection. Activities include : advocacy among business owners, polluters, workers, consumers and people in general, through meetings, publications, mass media and special campaigns; revision, enactment and enforcement of legislation concerning environmental health by applying economic instruments in pollution control (e.g. appropriate subsidies or charges); development of environmental health; surveillance programmes dealing with the quality of drinking water, surface water, and health; encouragement of control of water and air pollution, especially in large cities; establishment of occupational health programmes in both industrial and agricultural sectors to limit workers' exposure to health hazards; and lastly, implementation of the WHO Healthy Cities Programmes. All these approaches play a significant role in the Eighth National Economic and Social Development Plan.

Cross-Sectoral Issues

1. **Decision-Making Structure:** MOPH coordinates with other organizations (such as MOSTE). The Ministry of Interior, Bangkok Metropolitan Administration, Ministry of University Affairs, the Thai Red Cross Society, and NGOs provide services ranging from care and treatment, health promotion, disease prevention and rehabilitative care. However, decision-making structures are decentralized in the above-mentioned areas.

2. **Capacity-Building/Technology Issues:** Central government and all concerned organizations support regional and local organizations in the implementation of their activities by providing finance, technical assistance, equipment and training.

3. **Major Groups:** Local authorities, health volunteers, underprivildged groups (e.g. children, youth, elderly, and the poor) and private organizations.

4. **Finance:** Financial support is provided by the Government at central and local levels, the private sector, local authorities, NGOs and international organizations.

5. **Regional/International Cooperation:** Inter-agency cooperation is active in these areas: UNEP on Global Environment Monitoring Systems (GEMS), WHO on environmental health planning and the Healthy Cities Programme; UNICEF in Children's programmes, and UNESCO on environmental studies.

STATISTICAL DATA/INDICATORS

	1980	1990	Latest 199_	
Life expectancy at birth Male Female				
Infant mortality (per 1000 live births)				
Maternal mortality rate (per 100000 live births)				
Access to safe drinking water (% of population)				
Access to sanitation services (% of population)				
Other data				

AGENDA 21 CHAPTER 7: PROMOTING SUSTAINABLE HUMAN SETTLEMENT DEVELOPMENT

NATIONAL PRIORITY:	Medium	
STATUS REPORT: No information.		

Cross-Sectoral Issues

1. **Decision-Making Structure:** No information.

2. **Capacity-Building/Technology Issues:** No information.

3. **Major Groups:** No information.

4. **Finance:** No information.

5. **Regional/International Cooperation:** No information.

STATISTICAL DATA/INDICATORS

	1990	1995	
Urban population in % of total population	18.7	20.1	
Annual rate of growth of urban population (%)	2.6	2.5	
Largest city population (in % of total population)	10.6	11.2	
Other data			

AGENDA 21 CHAPTER 8: INTEGRATING ENVIRONMENT AND DEVELOPMENT IN DECISION-MAKING

(See pages vii and viii at the beginning of the profile)

NATIONAL PRIORITY: **Very High**

STATUS REPORT: Environmental impact assessment of policies and programmes is not yet as well developed as the EIA procedure for specific projects. A number of international agreements have called for national strategies, plans and programmes in both sectoral and cross-sectoral areas. Laws and regulations are revised from time to time, reflecting, *inter alia*, a growing appreciation of sustainable development concerns. The main constraints to implementing international legal instruments related to sustainable development recently signed or ratified have been the lack of staff resources, technical expertise, time, and funding. There are also difficulties encountered in amending existing national legislation. However, UNDP and other agencies' expert assistance on specific issues, time-tested procedures for ESCAP, and other UN consultations are perceived as very helpful,

Environmental sustainability, poverty alleviation and quality of life considerations have been given increased attention in the National Social and Economic Development Plan during the last 20-25 years. This trend has continued with the adoption of Thailand's Eighth Plan in 1996.

Cross-Sectoral Issues

1. Decision-Making Structure (please also refer to the fact sheet): EIA reporting is part of decision-making for all major projects. Projects of government agencies and enterprises require reports as part of each feasibility study, which are reviewed for approval by the National Environment Board. EIAs for private projects must be approved by a committee of experts before licenses are granted by the appropriate agencies.

Environmental Impact Assessment has been applied in Thailand as a tool for environmental planning and management of development projects since 1981. Currently, there are 22 types and sizes of projects for which the proponent must submit an EIA report before a license is granted. Since the Enhancement and Conservation of National Environmental Quality Act was enacted in 1992, the EIA process in Thailand has been changed, i.e. it requires additional reviewing groups. Various stakeholders experience problems in the implementation of EIA requirements because of a lack of experience and expertise with large scale projects in specific sectors, the lack of interest in EIA work, and the low quality of some parts of the EIA reports.

2. Capacity-Building/Technology Issues: There is a strong need to strengthen capacity as well as technological information. In Thailand, experts in specific fields such as air and noise impact assessment, and industrial risk assessment are scarce. Modern methodologies and techniques such as mathematical modeling and expert systems need to be applied more widely.

The Office of Environmental Policy and Planning (OEPP) is the agency responsible for EIA development and is currently coordinating with the Asian Development Bank and other international agencies to strengthen the EIA practice and build capacity for the future assessment of work.

3. Major Groups: All major stakeholders are consulted and encouraged to participate in the EIA process. Increasingly, diverse voices are represented effectively.

4. Finance: Finance is an important factor related to the quality of EIA reports, and EIA consulting firms are usually selected on the basis of the lowest biding price. Winning bids are quite low and do not allow for experienced experts to participate in preparing most reports.

5. Regional/International Cooperation: Generally, the political implications of international agreements and other policy issues are dealt with through consultation among all groups of stakeholders and, following a national tradition, action is taken only after a consensus on major policy issues has been reached.

Environmental Impact Assessment has been used as an integrative environmental management tool among countries. International cooperation such as expert assistance can help develop capacity in the area of Environmental Impact Assessment. Presently, Thailand cooperates with various institutes in developing countries to organize EIA-related training/workshops and prepare technical guidelines.

AGENDA 21 CHAPTER 9: PROTECTION OF THE ATMOSPHERE

NATIONAL PRIORITY:	High	

STATUS REPORT:
The Montreal Protocol and its Amendments were ratified by Thailand July 7, 1989
The London Amendment (1990) was ratified by Thailand June 25, 1992
The Copenhagen Amendment (1992) was ratified by Thailand December 1, 1995
The latest report(s) to the Montreal Protocol Secretariat were prepared in mid-1996.
United Nations Framework Convention on Climate Change : No information.

Additional comments relevant to this chapter

Thailand has been a party to the Montreal Protocol since 1989 and has ratified subsequent Amendments to the Protocol. Thailand, as an Article 5 country under the Protocol, is eligible for assistance from the Multilateral Fund. Two implementing agencies, the World Bank and the United Nations Development Programme (UNDP), work in Thailand to channel funds and equipment from the Multilateral Fund to industries in Thailand. As of December 1996, under UNEP, two projects have been completed, and under the World Bank, four solvent cleaning projects have received funding. Phase II of the domestic refrigerator projects have been submitted recently for consideration by the 21st Executive Committee.

Thailand's government has remained active in its efforts to curb the import of various Ozone Depleting Substances (ODSs), such as CFCs and halon, according to the provisions of its Country Programme (an official phaseout schedule for the country) as well as working to motivate industries to cooperate in the phasing out process. The Department of Industrial Works (DIW) has set quotas for each of these substances (CFC quotas began in 1993 and Halon quotas began in 1996) in order to control the ODSs entering Thailand. From 1994 to 1995, the amount of CFCs imported into Thailand decreased by approximately 1800 MT and the amount of halon imported into Thailand decreased by 60 MT. Thailand has also made strides towards increasing public awareness among industries. During Ozone Day, 16 September 1996, DIW organized a seminar in which industries were given the opportunity to learn about new alternatives to ODSs as well as share their experiences of changing to non-ODS technology.

Most recently, DIW has sent to the Cabinet a new regulation which bans CFCs in the production of new domestic refrigerators beginning 1 January 1997. This landmark regulation represents a conclusion to the close cooperation between DIW, the Ministry of International Trade and Industry, and Japan (MITI) to improve standards for the new R-134a compressor which domestic refrigerator manufacturers in Thailand will be using in the future.

Cross-Sectoral Issues

1. Decision-Making Structure: The Office of Environment Policy & Planning (OEPP) of the Ministry of Science, Technology & Environment (MOSTE) is primarily responsible for the protection of the atmosphere. It is a full-fledged member of the National Coordination Mechanism for Sustainable Development and serves as the Secretariat to the National Environment Board (NEB). National legislation has been reviewed, in part, in light of Agenda 21. Air pollution standards are reviewed continuously and are revised occasionally by the Pollution Control Department and the Ministry of Science Technology and Environment. The Hazardous Substances Control Division of the Department of Industrial Work of the Ministry of Industry is responsible for the control of CFCs.

2. Capacity-Building/Technology Issues: At the national level, the early detection system and the capacity to predict changes and fluctuations are rated as "poor" and national level capacity-building and training to perform systematic observations and assessments is rated " adequate". The Government has provided training opportunities in the area of transboundary atmospheric pollution control. The Department of Industrial Works (DIW), the Pollution Control Department (PCD) and the Industrial Estates Authority of Thailand (IEAT) share responsibility for improving environmental practices, including pollution control, waste minimization, wastewater treatment and toxic waste practices in all plants, especially those with ten or more workers. In terms of transboundary atmospheric pollution, the country's capacity for observation, assessment, and research is rated as "poor"; while its rating on information exchange is "good". Seminars have been held in the Aerosol and Haitian sectors, as well as on ozone day. These seminars discussed alternatives to ozone depleting substances.

3. Major Groups: NGOs carried out studies on the negative health effects resulting from air pollution. NGOs, major groups and the private sector have participated in efforts to strengthen the scientific basis for decision-making, promote sustainable development and prevent stratospheric ozone depletion. Agencies involved include: the Department of Industrial Works, United Nations Development Programme (UNDP), United Nations Environment Programme (UNEP), and the World Bank.

4. Finance: Funds and equipment from the multilateral fund of the Montreal Protocol are channeled through implementing agencies such as the World Bank and the United Nations Development Programme (UNDP). These funds and equipment are used to assist industries in Thailand to change to non-ODS technology.

5. Regional/International Cooperation: The Thai Government has not taken any initiative within the framework of the United Nations and its regional commissions to convene a regional conference on transportation and the environment, except for participating in a few seminars on "Vehicle Emission Control", sponsored by the World Bank. In the area of transboundary atmospheric pollution, regional, multilateral and bilateral agreements are being approved and discussed. United Nations bodies and intergovernmental organizations have participated in efforts to strengthen the scientific basis for decision making, promote sustainable development, prevent stratospheric ozone depletion and reduce transboundary atmospheric pollution. There was a Trilateral Conference between the Department of Industrial Works (Thailand), the U.S Environmental Protection Agency, and the Ministry of International trade and Industry (Japan) on CFCs.

STATISTICAL DATA/INDICATORS				
	1980	1990	Latest 199-	
CO_2 emissions (eq. million tons)				
SO_x "				
NO_x "				
CH_4 "				
Consumption of ozone depleting substances (Tons)				
Expenditure on air pollution abatement in US$ equivalents (million)				
Other data				

AGENDA 21 CHAPTER 10: INTEGRATED APPROACH TO THE PLANNING AND MANAGEMENT OF LAND RESOURCES

NATIONAL PRIORITY:

STATUS REPORT: In Thailand, the primary emphasis of land use planning has been on agricultural land. The Department of Land Development, under the Ministry of Agriculture and cooperatives has implemented activities concerning sustainable land management as follows:

1. Soil Information System Management in order to determine the best use for land. This information system utilizes maps and digital systems;

2. Land Use Planning and Land Use Zoning for determining land-use in agricultural areas;

3. Land and Water Conservation and Land Resource Management for sustainable development. During the 8th National Economic and Social Development Plan, soil erosion prevention by undertaking the cropping system.

4. Establishing land conservation volunteers in villages to advise farmers about land use management.

Thailand has promoted sustainable land use in earlier national development plans through various means -- land conservation, minimization of chemical applications, planting methods, crop diversification, etc. In the 7th Plan, the sustainable land use concept was broadened through integrated land use planning and management. Land consolidation and agricultural marketing supports have been provided. The new concept of sustainable agriculture for areas vulnerable to drought has been promoted in selected areas by the King. Similarly, chemical-free agriculture or natural farming has been promoted in areas where there is market potential.

Due to sustainable agriculture, pressure on forest areas which are agriculturally marginal has been reduced. To further enhance ecological systems and achieve the national target, forest rehabilitation and reforestation has been promoted on private land. A major part of land use planning in Thailand concerns the classification of land and soil through surveys which are used to support agricultural economic zoning to identify crop potential.

Land classification in Thailand was completed in 1988. A soil survey was implemented and completed at the end of the 6th Plan.

A more detailed survey of land capability classification is needed for practical land use purposes. The Department in charge has completed a soil detail survey for 1.5 million rai annually between 1992-1996. In the future, land use planning at the village level will be prepared.

A number of projects have been implemented to support the adoption of the land use planning program. Those activities implemented before 1992, which will continue throughout the 8th Plan, include : detailed classification, soil tests, socio economic surveys by soil types, soil classification, land use planning at the village level, and preparing a land use map at the provincial level.

Cross-Sectoral Issues

1. Decision-Making Structure: The Department of Land Development is responsible for sustainable land use in Thailand. The Department of Land Development provides projects and alternatives for sustainable land use for farmers to make decisions.

2. Capacity-Building/Technology Issues:
- Land use planning
- Land and water conservation, both cropping and mechanical systems
- Soil Management for agriculture

Major Objectives in capacity-building for sustainable land use include
- organic matter should be maintained in the soil at suitable levels
- plant nutrient removal by crop should be replenished
- soil erosion must be controlled

3. Major Groups: Women, children and youth, private enterprise, local administrative bodies, scientists and technologists, and farmers are the major groups involved in sustainable land use.

4. Finance: Budget of the Thailand Government.

5. Regional/International Cooperation: Jive.

AGENDA 21 CHAPTER 11: COMBATING DEFORESTATION

NATIONAL PRIORITY:

STATUS REPORT: Thailand is one the continental South-East Asian countries with an area of 320.7 million rai (51.3 million ha) and a population of 60 million. During the last three decades, the forestry sector has been plagued by persistent deforestation and an impasse in reforestation activities. Forest cover of the Kingdom has declined from 171.0 million rai (27.4 million ha) or 53.3% of the land area in 1961 to only 83.5 million rai (13.4 million ha) or 26.0% in 1993.

Various studies have isolated a number of factors which affect deforestation. Population increase is the most important as it requires increased demand for farmland and forest products. Low incomes reinforce the effect of population pressure. Rising agricultural productivity and crop prices underlie the demand for land for commercial purposes . To a lesser extent, forests have been lost to physical infrastructure such as roads and dams, golf courses and resorts, and conversion to aquaculture. Natural forests have also been converted to commercial forest plantations. These factors are becoming more conspicuous, since they occur mainly in accessible forests. Land speculation is driving land prices to extraordinarily high levels, and attractively located forests are now being prepared for conversion.

Thailand so far has relied on regulations to protect and conserve forest areas and their natural resource base. In order to safeguard biological diversity, a large forest area has been demarcated as protected. Currently, there are 112 national parks, 44 wildlife sanctuaries, 48 non-hunting areas, 25 watershed areas, 22 protected mangrove forests, 47 forest parks, 5 botanical gardens, and 44 arboreta in the country, covering a total area of about 84 million rai (13.4 million ha) or 26.19% of the land area of the Kingdom. In these protected areas, the rehabilitation of forests has been undertaken by relying on indigenous species to improve environmental stability. Future implementation programs emphasizing the conservation of biodiversity are being given top priority.

Since 1994 , the Royal Forest Department has been implementing three major projects: Forest Rehabilitation Project to Commemorate the Royal Golden Jubilee, the Private Forest Farm, and Fast-growing Tree Species Extension. In addition, community forestry development has been successful in various areas of the country, including the Reforestation and extension project in the Northeast of Thailand (a REX Project supported by JICA) which is now promoted as a means for rehabilitation as well as for rural development. These activities not only improve the environmental quality of local communities, but also upgrade the living standard of villagers due to income generating activities.

In order to protect the remaining forest area, the Forest Protection Office of the Royal Forest Department has been working on protecting the remaining forest and encouraging people to collaborate in forest conservation. These measures include law enforcement and conservation campaigns. Law enforcement is mostly used by Forest Protection Units, which total 598 units throughout the country. The campaigns are mostly implemented by Forest Fire Control sessions which total 59 around the country.

The Ministry of Agriculture and Cooperatives has announced a ban of further mangrove forest concessions in order to conserve the remaining mangrove forest area,. Law enforcement as well as regulations are being revised so that enforcement will be more effective. Rehabilitation plans have been implemented and check points and mangrove forest protection units have also been established.

Cross-Sectoral Issues

1. **Decision-Making Structure:** No information.

2. **Capacity-Building/Technology Issues:** No information.

3. **Major Groups:** No information.

4. **Finance:** No information.

5. **Regional/International Cooperation:** No information.

STATISTICAL DATA/INDICATORS

	1985	1990	Latest 199-	
Forest Area (Km^2)				
Protected forest area				
Roundwood production (solid volume of roundwood without bark in mill m^3)				
Deforestation rate (Km^2/annum)				
Reforestation rate (Km^2/annum)				
Other data				

AGENDA 21 CHAPTER 12: MANAGING FRAGILE ECOSYSTEMS: COMBATING DESERTIFICATION AND DROUGHT

NATIONAL PRIORITY:	**Low**	

STATUS REPORT:

The International Convention to Combat Desertification in Countries Experiencing Drought and/or Desertification Particularly in Africa has not yet been signed by the Government.

Additional comments relevant to this chapter

Thailand always sends representatives to meetings concerning the International Convention to Combat Desertification. Thailand is considering cooperating as an associate member.

The Royal Thai Government has designated representatives to participate in the various meetings of the Intergovernmental Negotiating Committee for the Desertification Convention. Thailand is very much interested in becoming a party to the Convention and is in the process of acceding to the Convention. Thailand is conducting many programmes and activities that are in line with the objectives of the Convention. They include land use planning in several watershed areas, conservation of land and water programmes, the establishment of land development villages, etc.

Cross-Sectoral Issues

1. **Decision-Making Structure:** No information.

2. **Capacity-Building/Technology Issues:** Land use planning, land and water conservation.

3. **Major Groups:** Government Organization: Department of Land Development; Agricultural Organization: Volunteers of Land Conservation in villages.

4. **Finance:** Budget of the Thai Government.

5. **Regional/International Cooperation:** JICA, FAO, OSTROM IBSRAM.

STATISTICAL DATA/INDICATORS

	1980	1990	Latest 199_	
Land affected by desertification* (Km^2)				

Other data
* Effected area cannot be identified but a portion of the land area experiences desertification.
Soil erosion affects about 134 million rai.

AGENDA 21 CHAPTER 13: MANAGING FRAGILE ECOSYSTEMS: SUSTAINABLE MOUNTAIN DEVELOPMENT

NATIONAL PRIORITY: **High**

STATUS REPORT: The Department of Land Development reports as follows :

1. The highland area of Thailand is about 96.1 million rai, consisting of a

- Northern Part 54.0 million rai
- Middle Part 12.0 million rai
- Southern Part 14.6 million rai
- North Eastern Part 12.1 million rai
- Eastern Part 3.4 million rai

2. The population living in highland areas is about 850,000 persons distributed among 20 provinces.
3. Natural resource degradation and deforestation has had a very negative impact on ecological balance.
4. Highland communities are classified into four groups: registered community; unregistered community with the potential to be a registered community; unregistered community which cannot be a registered community; and special community.

Cross-Sectoral Issues

1. **Decision-Making Structure:** The Secretariat of the National Security Council and the Department of Land Development are responsible for the sustainable management of mountains in Thailand.

2. **Capacity-Building/Technology Issues:** Land and Water Conservation Systems in highland areas.

3. **Major Groups:** All concerned groups.

4. **Finance:** The Thai Government budget.

5. **Regional/International Cooperation:** International cooperation includes ASEAN and bilateral activities with Burma, Cambodia and Laos. Thailand receives aid from ADB and Finland.

STATISTICAL DATA/INDICATORS

AGENDA 21 CHAPTER 14: PROMOTING SUSTAINABLE AGRICULTURE AND RURAL DEVELOPMENT

NATIONAL PRIORITY:	High	

STATUS REPORT:

A. Under the 8th National Social and Economic Development Plan, the Department of Land Development will undertake the following activities between 1997 - 2001 :

(1) Land Use Planning, (2) Land and Water Conservation Systems, (3) Vertiver grass against erosion, (4) Cropping Systems, (5) Integrated Agricultural Systems, (6) Selection of Crop varieties tolerant of pest and soil, and (7) Tree Conservation and forests expansion by growing new trees.

B. The Community Development Department (CDD) of the Ministry of Interior, is responsible for improving the quality of life and environment of rural people to meet basic minimum needs by promoting participation in family and community development activities. According to the 1992 Degree on Administration of the Community Development Department, the CDD has the following mission:

1. The CDD educates and develops people in the learning process to establish self-reliance in social, economic and environmental development. The target groups are children, youth, women, community volunteers and local leaders;
2. The CDD supports people's organizations, community development volunteers and leaders in community development by promoting public participation with respect to their economic, social and cultural circumstances;
3. The CDD systematically promotes rural development administration by assisting communities to establish Village Data Systems to guide Rural Development Plans. The CDD also develops community organizations to enable them to solve problems.

In terms of Environmental Development the CDD has 3 main activities as follows:

1. Rural Infrastructure Development - to build, maintain and use public properties, such as rainwater containers, wells, village roads and bridges;
2. Environmental Development to encourage people to conserve natural resources and environment through non-formal education methods, i.e. training and mass media (printed materials and audio visual aids);
3. Water Resource Utilization Promotion Project. This project has organized water resource users, (i.e. occupation groups and general water users), to establish Water Resource Utilization Groups for water resource maintenance and problem solving. The Water Utilization Group has developed administrative committees, rules and water utilization regulations in order to maximize its distribution among users so that living standards can be improved.

The Water Resource Management Project has two main activities. The project provides a training course for members of the group about water resource management. The project has also supported a revolving fund per group for occupational and water utilization activities i.e. vegetable cultivating, live stock, fishery and integrated farming.

Through the Community Approach to the Natural Resources Management Project (CNM Project), the CDD established a collaborative relationship with the Faculty of Social Administration, Thanmasat University, a committee of community development experts from the University of Wisconsin-Madison in the United States and The Royal Forest Department of Agriculture and Cooperatives. The CNM project received funding from the Ford Foundation. The project's goal is to encourage participation in natural resource management with an emphasis on community forests, the role of community development, workers, and the process of raising the level of local participation.

The CDD encourages participation in the conservation, maintenance and sustenance of nature and the environment through a joint effort of the government and private sector.

Cross-Sectoral Issues

1. **Decision-Making Structure:** No information.

2. **Capacity-Building/Technology Issues:** No information.

3. **Major Groups:** No information.

4. **Finance:** No information.

5. **Regional/International Cooperation:** No information.

STATISTICAL DATA/INDICATORS

	1985	1990	Latest 199_	
Agricultural land (Km^2)				
Agricultural land as % of total land area				
Agricultural land per capita				
	1989/90	**1992/93**	**Latest 199_**	
Consumption of fertilizers per Km^2 of agricultural land as of 1990				
Other data				

AGENDA 21 CHAPTER 15: CONSERVATION OF BIOLOGICAL DIVERSITY

NATIONAL PRIORITY:

STATUS REPORT:

The Convention on Biological Diversity was signed in 1992. The Convention has not yet been ratified.

The Convention on International Trade in Endangered Species of Wild Fauna and Flora was signed in 1975 and ratified in 1983.

Additional comments relevant to this chapter In accordance with the decision of UNCD, RFD has formed a committee for considering the issues concerning biological diversity. Currently, RFD is in the process of establishing an office to handle the implementation in cooperation with the National Committee on the Convention in Biological Diversity which is the national biodiversity governing body under the National Environmental Board.

The Department of Fisheries is responsible for aquatic fauna in Thai Waters (including Crocodiles). The Department of Fisheries has adequate capacity and technological inputs in regards to aquatic fauna. Traders, aquaculturists and crocodile farmers are involved.

No data is available on finance.

The Department of Livestock Development (DLD) has continued to work on programmes for the conservation of indigenous animal genetic resources which include endangered species, such as cattle of the scientific names *Bos banteng*, *Bos frontalis*, two native cattle breeds, as well as two breeds of laying ducks known as *Paknum* and *Nakon Pathom*. There are four vulnerable indigenous species in the country known as swamp buffaloes, *Pubalus bubalis*; native chicken, muscovy duck and geese; four breeds of swine; and seven breeds of dairy and beef cattle. The DLD develops research programmes concentrating on these indigenous animal genetic resources by assigning the Animal Husbandry Division to research and monitor such species, aiming to maintain pure line breeding and then utilize cross breeding to produce a sustainable herd. The DLD is preparing to renew the Livestock Breeding Improvement Regulation to conserve and appropriately use indigenous and exogenous animal genetic resources.

Cross-Sectoral Issues

1. **Decision-Making Structure:** No information.

2. **Capacity-Building/Technology Issues:** No information.

3. **Major Groups:** No information.

4. **Finance:** No information.

5. **Regional/International Cooperation:** The agencies and organizations concerned with wildlife conservation under CITES. HRI is cooperating with the Botany and Weed Science Division in identifying varieties of indigenous fruit crops and vegetable and medicinal plants. Regarding the conservation of threatened species, 9 kinds of fruit crops (119 varieties) in areas prone to flooding in central Thailand have been collected. Germplasm gardens have been established. Morphology studies are now being implemented. HRJ also cooperates with IBPGR in the collection of introduced varieties.

STATISTICAL DATA/INDICATORS

	1992	Latest 199_	
Protected area as % of total land area			
	1990	**Latest 199_**	
Number of threatened species			
Other data			

AGENDA 21 CHAPTER 16: ENVIRONMENTALLY SOUND MANAGEMENT OF BIOTECHNOLOGY

NATIONAL PRIORITY:	Medium	
STATUS REPORT: Please refer to Chapter 15.		

Cross-Sectoral Issues

1. **Decision-Making Structure:** No information.

2. **Capacity-Building/Technology Issues:** No information.

3. **Major Groups:** No information.

4. **Finance:** No information.

5. **Regional/International Cooperation:** No information.

STATISTICAL DATA/INDICATORS

AGENDA 21 CHAPTER 17: PROTECTION OF THE OCEANS, ALL KINDS OF SEAS, INCLUDING ENCLOSED AND SEMI-ENCLOSED SEAS, AND COASTAL AREAS AND THE PROTECTION, RATIONAL USE AND DEVELOPMENT OF THEIR LIVING RESOURCES

NATIONAL PRIORITY: **High**

STATUS REPORT:

The UN Convention on the Law of the Sea: No information.

See also the attached tables on the next pages.

Thailand has no national policy on oceans. There is, however, a programme for the integrated management and sustainable development of coastal and marine areas, excluding EEZs. All activities under this programme area are rated as "important" or "very important"; some have been fully covered, most are well covered and gaps are being addressed. The programme area on marine environmental protection calls for action that should be taken in accordance with the provisions of the United Nations Convention on the Law of the Sea. Regarding the programme area of marine environmental protection, Environmental Impact Assessment (EIA) is a mandatory requirement for specific major investment activities which may cause significant adverse impact on the environment. Tax exemption is provided for investment in all environmental protection and energy saving equipment. All activities under the programme area concerning marine environment technology are rated as "important". The Fisheries Department (Ministry of Agriculture) is monitoring coastal zones and estuaries for toxic chemicals, heavy metals and oil pollution. More generally, environmental management policies and structures are still being fleshed out; measures concerning land areas (e.g. water supplies) are slightly more advanced than arrangements to manage coastal and marine resources. The Thai Government has access to technologies that serve to identify the major types of pollution of the marine environment from land-based sources, but these technologies are neither installed nor used. A list of projects for external funding will be prepared in the context of Plan VIII (1997-2001). The following projects have been or are in process of being completed: (1) USAID-ASEAN Coastal Resources Management Project; (2) Integrated Coastal Resources Management Project (U.S. Rhode Island University).

All sewage-related issues are rated as "important" or "very important" but are poorly covered. Wastewater standards were established in Plan VII, the Environmental Law of 1992 and related regulations; however, performance has not kept pace with standards. Major wastewater collection and treatment investments have been formulated and are now being implemented in the areas of most substantial burden (e.g., Bangkok Metropolitan Region, tourist areas like Pattaya, Pukhet, Samui, *et. al.*). Most activities under the programme area on marine environmental protection are rated as "important", but are poorly covered. Most of the activities under programme area: "Addressing critical uncertainties for the management of the marine environment" and "Climate change" are rated as "important" but are poorly covered or not at all. Once the focal point for dealing with these issues has been determined by the Royal Thai Government, Thailand will participate more actively in international cooperative scientific programmes. The Government also intends to develop socio-economic and environmental indicators, mussel watch programmes, clearing houses and participate in systematic observation systems. In order to provide information for integrated coastal management, a bibliography will be assembled and evaluated. Since 1975, comprehensive assessments have been made of the state of the environment of coastal and marine areas. The rate of deterioration has declined but is still of significant concern. Regenerating mangroves, cleaning beaches and other improvements will require focused attention and substantial resources during the next decade.

Cross-Sectoral Issues

1. Decision-Making Structure: The Office of Environmental Policy & Planning (OEPP) requires the preparation of Environmental Management Plans annually in each of nearly 80 Changwats (administrative units like provinces); the Department of Land Development of the Ministry of Agriculture and Cooperatives plans and regulates land use especially of coastal areas and estuaries; the Department of Local Administration of the Ministry of Interior is responsible for town planning functions and has prepared Urban Environmental Management Guidelines for the application of seven pilot township projects. These departments are fully integrated in the national structure responsible for sustainable development, an interagency subcommittee on coastal resources management works within the NEB framework. The Office of Environmental Policy and Planning (OEPP) of the Ministry of Science, Technology and Environment (MOSTE) of the marine Coastal sub-committee under the National Environment Board (NEB) is primarily responsible for evaluating plans, problems, issues, etc. about coastal areas for decision-making.

2. Capacity-Building/Technology Issues: Thailand has developed capacity-building and training programmes. OEPP has initiated a programme of coral protection and rehabilitation for which a zoning system has been established. Three zones of coral reefs in Thailand were classified according to conservation and economic development needs which include a local management zone and a tourism zone. Rehabilitation programmes to protect against the damage caused by boat anchoring activities have been implemented through public information campaigns via publications and popular media such as radio and television. The Thai Government realizes the importance of managing forests and coral reef habitats.

3. Major Groups: Major group participation, including the private sector, small-scale artisanal fishermen and indigenous people, is advisory at national and local levels. No specific information is available.

4. Finance: No specific information available.

5. Regional/International Cooperation: ASEAN's environmental activities and UNEP's Regional Seas Programme are activities requiring international cooperation for sea-based activities. Regarding the sustainable use and conservation of living resources of the high seas, relevant agreements are being reviewed in order to formulate national policies. Responsible authorities are still reviewing the Code of Conduct on Responsible Fishing, as it is a relatively new document for the Thai Government. Thailand also participates in UNEP's Regional Seas Programme, Mekong River Development studies and consultations, South East Asia Fisheries Development, Asia Pacific Fisheries Development, and the Marine Fisheries Committee. It takes part in the Global Ocean Observing System.

OEPP Cooperated with AEAN countries under the ASEAN Australia Economic Cooperation Programme (AAECP) phase III, sponsored by the Australian Government. In the future, this project will exchange coastal data in the region for sustainable coastal management.

STATISTICAL DATA/INDICATORS				
	1980	1990	Latest 199-	
Catches of marine species (metric tons)	1,640	2,500	3,150	
Population in coastal areas				
Population served by waste water treatment (% of country's total population)				
Discharges of oil into coastal waters (metric tons)				
Releases of phosphate into coastal waters (metric tons)				
Releases of nitrate into coastal waters (metric tons)				
Mangrove forests (rai)	1,128,494 (1989)	1,086,381 (1991)	1,054,266 (1993)	
Shrimp farm (rai)	440,785 (1989)	470,826 (1991)	494,292 (1993)	

Chapter 17 (Oceans) Continued:

Check the boxes in the column below left:
For level of importance use:
*** = very important
** = important
* = not important
N = not relevant

Check the boxes in the column below right:
For level of implementation use:
*** = fully covered
** = well covered - gaps being addressed
* = poorly covered
O = not covered
N = not relevant

TABLE I. THE FOLLOWING ACTIVITIES HAVE BEEN CONSIDERED BY THE APPROPRIATE COORDINATING MECHANISM FOR INTEGRATED MANAGEMENT AND SUSTAINABLE DEVELOPMENT OF COASTAL AND MARINE AREAS AND THEIR RESOURCES.

LEVEL OF IMPORTANCE	ACTIVITY AS DESCRIBED IN AGENDA 21	LEVEL OF IMPLEMENTATION
**	a. Preparation and implementation of land and water use and siting policies.	**
***	b. Implementation of integrated coastal and marine management and sustainable development plans and programmes at appropriate levels.	**
**	c. Preparation of coastal profiles identifying critical areas including eroded zones, physical processes, development patterns, user conflicts and specific priorities for management.	**
***	d. Prior environmental impact assessment, systematic observation and follow-up of major projects, including systematic incorporation of results in decision-making.	***
**	e. Contingency plans for human induced and natural disasters.	**
**	f. Improvement of coastal human settlements, especially in housing, drinking water and treatment and disposal of sewage, solid wastes and industrial effluents.	**
**	g. Periodic assessment of the impacts of external factors and phenomena to ensure that the objectives of integrated management and sustainable development of coastal areas and marine environment are met.	**
**	h. Conservation and restoration of altered critical habitats.	**
**	I. Integration of sectoral programmes on sustainable development for settlements, agriculture, tourism, fishing, ports and industries affecting the coastal areas.	**
**	J. Infrastructure adaptation and alternative employment.	*
***	K. Human resource development and training.	**
***	L. Public education, awareness and information programmes.	**
**	M. Promoting environmentally sound technology and sustainable practices.	*
**	N. Development and simultaneous implementation of environmental quality criteria.	*

TABLE II. TECHNOLOGY (MARINE ENVIRONMENT)

LEVEL OF IMPORTANCE	ACTIVITY AS DESCRIBED IN AGENDA 21	LEVEL OF IMPLEMENTATION
**	A. Apply preventive, precautionary and anticipatory approaches so as to avoid degradation of the marine environment, as well as to reduce the risk of long-term or irreversible adverse effects upon it.	*
**	B. Ensure prior assessment of activities that may have significant adverse impacts upon the marine environment.	**
**	C. Integrate protection of the marine environment into relevant general environmental, social and economic development policies.	**
**	D. Develop economic incentives, where appropriate, to apply clean technologies and other means consistent with the internalization of environmental costs, such as the polluter pays principle, so as to avoid degradation of the marine environment.	0
**	E. Improve the living standards of coastal populations, particularly in developing countries, so as to contribute to reducing the degradation of the coastal and marine environment.	*
**	F. Effective monitoring and surveillance within the exclusive economic zone (EEZ) of fish harvesting and transportation of toxic and other hazardous materials.	*

TABLE III. SEWAGE RELATED ISSUES

LEVEL OF IMPORTANCE	ACTIVITY AS DESCRIBED IN AGENDA 21	LEVEL OF IMPLEMENTATION
***	A. Sewage related problems are considered when formulating or reviewing coastal development plans, including human development plans.	*
**	B. Sewage treatment facilities are built in accordance with national policies.	*
***	C. Coastal outfalls are located so as to maintain acceptable level of environmental quality and to avoid exposing shell fisheries, water intakes and bathing areas to pathogens.	*
**	D. The Government promotes primary treatment of municipal sewage discharged to rivers, estuaries and the sea, or other solutions appropriate to specific sites.	*
**	E. The Government supports the establishment and improvement of local, national, subregional and regional, as necessary, regulatory and monitoring programmes to control effluent discharge. Minimum sewage effluent guidelines and water quality criteria are in use.	*

TABLE IV. OTHER SOURCES OF MARINE POLLUTION, THE GOVERNMENT HAS:

LEVEL OF IMPORTANCE	ACTIVITY AS DESCRIBED IN AGENDA 21	LEVEL OF IMPLEMENTATION
**	A. Established or improved upon, as necessary, regulatory and monitoring programmes to control emissions, including recycling technologies.	*
***	B. Promoted risk and environmental impact assessments to help ensure an acceptable level of environmental quality.	*
**	C. Promoted assessment and cooperation at the regional level, where appropriate, with respect to the input of point source pollutants from the marine environment.	*
*	D. Taken steps to eliminate emissions or discharges of organohalogen compounds from the marine environment.	*
*	E. Taken steps to eliminate/reduce emissions or discharges or other synthetic organic compounds from the marine environment.	*
**	F. Promoted controls over anthropogenic inputs of nitrogen and phosphorous that enter coastal waters where such problems as eutrophication threaten the marine environment or its resources.	*
*	G. Taken steps to develop and implement environmentally sound land-use techniques and practices to reduce run-off to water courses and estuaries which would cause pollution or degradation of the marine environment.	*
**	H. Promoted the use of environmentally less harmful pesticides and fertilizers and alternative methods for pest control, and considered the prohibition of those found to be environmentally unsound.	**
**	I. Adopted new initiatives at national, subregional and regional levels for controlling the input of non-point source pollutants which require broad changes in sewage and waste management, agricultural practices, mining, construction and transportation.	*
**	J. Taken steps to control and prevent coastal erosion and siltation due to anthropogenic factors related to, inter alia, land-use and construction techniques and practices.	*

TABLE V. ADDRESSING CRITICAL UNCERTAINTIES FOR THE MANAGEMENT OF THE MARINE ENVIRONMENT AND CLIMATE CHANGE. IN ORDER TO IMPLEMENT THIS PROGRAMME AREA THE GOVERNMENT IS CARRYING OUT THE FOLLOWING ACTIVITIES:

LEVEL OF IMPORTANCE	ACTIVITY AS DESCRIBED IN AGENDA 21	LEVEL OF IMPLEMENTATION
**	A. Coordinating national and regional observation programmes for coastal and near-shore phenomena related to climate change and for research parameters essential for marine and coastal management in all regions.	*
**	B. Providing improved forecasts of marine conditions for the safety of inhabitants of coastal areas and for the efficiency of marine operations.	*
**	C. Adopting special measures to cope with and adapt to potential climate change and sea-level rise.	**
**	D. Participating in coastal vulnerability assessment, modelling and response strategies particularly for priority areas, such as small islands and low-lying and critical coastal areas.	*
*	E. Identifying ongoing and planned programmes of systematic observation of the marine environment, with a view to integrating activities and establishing priorities to address critical uncertainties for oceans and all seas.	0
*	F. Research to determine the marine biological effects of increased levels of ultraviolet rays due to the depletion of the stratospheric ozone layer.	0
**	G. Carrying out analysis, assessments and systematic observation of the role of oceans as a carbon sink.	0

TABLE VI. RATING OF ACTIVITIES IN THE AIR AND MARITIME TRANSPORT SECTORS IN THE SMALL ISLANDS DEVELOPING STATES (SIDS)

AIR TRANSPORT	RATING	MARITIME TRANSPORT	RATING
1. Frequency (external flights)		1. Frequency (external shipping)	
2. Frequency (in-country flights)		2. Frequency (in-country shipping)	
3. Cooperation at regional level in air transport and civil aviation		3. Cooperation at regional level in shipping	
4. Cooperation at international level		4. Cooperation at international level	
5. Economic viability of national air line		5. Economic viability of national shipping line(s)	
6. Economic viability of regional air line		6. Economic viability of regional shipping line (s)	
7. national level training in skills for air transport sector		7. National level training in skills for maritime transport sector	
8. Access to training in skills for air transport sector within the region		8. Regional level training in skills for maritime transport sector	
9. Access to international training for air transport sector		9. Access to international training for maritime transport sector	
10. Supportive of ICAO			

AGENDA 21 CHAPTER 18: PROTECTION OF THE QUALITY AND SUPPLY OF FRESHWATER RESOURCES: APPLICATION OF INTEGRATED APPROACHES TO THE DEVELOPMENT, MANAGEMENT AND USE OF WATER RESOURCES

NATIONAL PRIORITY:	High	

STATUS REPORT: A number of measures for protecting the quality and supply of freshwater resources in Thailand have been applied. They range from the acceleration of development and provision of water from suitable sources (i.e. atmosphere, surface and underground) to the allocation and utilization of seasonally available water resources. These measures are elaborated below:

(1) Surveying and acquiring areas with potential for reservoir construction without destroying the ecology and life pattern of local people;
(2) Dredging existing natural canals and swamps in order to increase their capacity;
(3) Stimulating artificial rainfall where and when moisture in the atmosphere permits during long period of drought;
(4) Giving support to farmers in order to construct community or individual farm ponds;
(5) Reforesting of watersheds to conserve national water sources for domestic use throughout the year;
(6) Maintaining and preventing water sources from being polluted by:

6.1 Controlling water hyacinth and weeds in all rivers, canals, waterways and water resources throughout the country;

6.2 Forbidding the disposal of garbage, industrial and domestic waste waters into water resources;

(7) Prioritizing those activities which require water from constructed sources and clearly defining water allocation ratios;
(8) Establishing community-based organizations and encouraging them to participate in managing water use in their areas;
(9) Educating water users to appreciate the water shortage problem, especially in dry season;
(10) Campaigning for efficient water use and against the misuse of water;
(11) Encouraging farmers to grow short-lived crops to supplant dry season rice growing.

Develop and implement appropriate national water policies for sustainable fisheries management in order to provide for the optimum long-term sustainable contribution of fisheries to food production for national consumption. These policies aim to increase fish stock intensities and reduce the impact of Aquatic pollution, while simultaneously preserving the quality and availability of water for other purposes, especially human consumption. In that context, the following particular objectives have been identified:
- Strengthen fisheries and aquaculture scientific research,
- Reduce excess fishing capacity,
- Minimize waste discards and the catch of some aquatic species through measures including the development and use of environmentally safe and cost-effective fishing gear and techniques,
- Study the effectiveness of multi-species management,
- Conserve freshwater biodiversity.

Thailand's Department of Fisheries is responsible for conducting research and investigation in the fields of fishery biology, aquaculture, and sustainable fisheries development, and for protecting natural water resources through regulations and the control of fishing activities. The Department develops its own capacity-building and training programmes. Thailand takes part in the Mekong River Development Studies and Consultations Network of Aquaculture Centres in Asia (NACA), CTD, and FAO.

Cross-Sectoral Issues

1. **Decision-Making Structure:** No information.

2. **Capacity-Building/Technology Issues:** No information.

3. **Major Groups:** No information.

4. **Finance:** No information.

5. **Regional/International Cooperation:** No information.

STATISTICAL DATA/INDICATORS				
	1980	1990	Latest 199-	
Fresh water availability (total domestic/external in million m^3)				
Annual withdrawal of freshwater as % of available water				
Other data				

AGENDA 21 CHAPTER 19: ENVIRONMENTALLY SOUND MANAGEMENT OF TOXIC CHEMICALS, INCLUDING PREVENTION OF ILLEGAL INTERNATIONAL TRAFFIC IN TOXIC AND DANGEROUS PRODUCTS

NATIONAL PRIORITY:

STATUS REPORT: Ministerial Announcements (1994,1995) under the provisions of the Hazardous Substance Act B.E 2535 (1992).

Toxic and dangerous products were declared hazardous substances in the Ministerial Announcements. The production, import, export or possession of any hazardous substance must be in compliance with control measures. Some hazardous substances are prohibited in all activities. The Thai Government has promoted policies for the safe management of hazardous substances under the provisions of the law. These policies have been published in the Government Gazette. The Committee on Hazardous Substances shall have powers and duties to give opinions to the Minister of Industry or other responsible Ministers regarding the prescription of announcements. Control measures shall be covered in section 20 of the Hazardous Substance Act B.E. 2535 (1992). The producer, importer, exporter or the person having the substance in possession must comply with the regulations. A few examples of the regulations include: having a suitable and safe location for storage and production; placing labels on containers; the safe transportation, waste management and protection of the environment. The purpose of this act is to prevent, mitigate or arrest the dangers that could be inflicted upon persons, animals, plants, property or the environment, as well as consider international conventions and covenants.

The Information Center for Hazardous Substances was established in the Department of Industrial Works as a coordinating center. This Center collects and services all kinds of information relating to hazardous substances.

About 918 chemicals were named in the Ministerial Announcement (1994) to be controlled by the Ministries of Industry, Agriculture and Public Health. The Ministry of Industry, among others, is responsible for the safe management of hazardous substances. The Department of Industrial Work serves as the Secretariat for the Committee on Hazardous Substances. The Government believes that it cannot rate Thailand's capacity to control hazardous substances as "excellent" by world standards. The Government is proud of the fact that its capacity is rated "fair to excellent" among developing countries.

The Port Authority of Thailand (PAT) is a state enterprise under the supervision of the Ministry of Transport and Communications. The main activities of PAT provide efficient services for ships and cargoes.

Most cargoes passing through Bangkok Port and Laem Chabang Port include dangerous cargoes, which need safe handling and storing. In this regard, PAT has provided sufficient facilities such as open storage areas, as well as other measures to comply with the safety standards of the International Maritime Organization (IMO).

PAT has enforced laws, regulations and announcements issued by itself and governmental agencies related to the safe handling and storage of dangerous goods within the port area. The Chemical Goods Section under the supervision of the Director General of Bangkok Port is responsible for checking and giving advice on the handling of dangerous goods in port area.

Dangerous goods are ranked in 9 classes in accordance with the IMDG Code. In 1995, 11.28% of class 89.07 of class 4.2 and 7.46% of class 4.1 of total passed 723,523 metrictons passed through Bangkok Post. 5.9% class 1 and 7 and 94.1% of class of 2,3,4,5,6 and 9 of total passed 114,711 metrictons passed to Laem Chabang Port.
The Bangkok Port, an open storage area of 9,846 m^2, provides storage for dangerous cargoes and includes container box safety equipment. The Laem Chabang Port, a warehouse for the storage of dangerous cargoes with an area of 8,200 m^2, is under construction. It is expected be completed in June 1998.

Cross-Sectoral Issues

1. **Decision-Making Structure:** No information.

2. **Capacity-Building/Technology Issues:** No information.

3. **Major Groups:** No information.

4. **Finance:** No information.

5. **Regional/International Cooperation:** ASEAN sponsored a study on improving the handling of dangerous goods in ASEAN ports.

The Swedish Government provided PAT a grant to develop safety systems for the handing and storage of dangerous goods and for emergency preparedness. Regional cooperation has taken place within the public sector. The private sector has participated in some seminars, as well as in the Committee on Hazardous Substances.

STATISTICAL DATA/INDICATORS

AGENDA 21 CHAPTER 20: ENVIRONMENTALLY SOUND MANAGEMENT OF HAZARDOUS WASTES, INCLUDING PREVENTION OF ILLEGAL INTERNATIONAL TRAFFIC IN HAZARDOUS WASTES

NATIONAL PRIORITY:	
STATUS REPORT: The Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal was signed in 1990. The latest information provided to the Basel Convention Secretariat was in 1996. Additional comments relevant to this chapter Thailand would like to address the need for further training in hazardous waste management.	

Cross-Sectoral Issues

1. **Decision-Making Structure:** The Ministry of Industry manages hazardous substances under the provisions of the Hazardous Substance Act BE 2535 (1992).

2. **Capacity-Building/Technology Issues:** Thailand's capacity for hazardous waste disposal is approximately 100,000 tons/year. Relevant technology issues include physical treatment, chemical treatment and landfills.

3. **Major Groups:** The major hazardous waste groups are heavy metal sludge solids and oils.

4. **Finance:** The Royal Thai Government budget.

5. **Regional/International Cooperation:** The Government participates in bilateral cooperation with France, England and Finland. There is no regional cooperation in this area.

STATISTICAL DATA/INDICATORS

	1980	1990	Latest 1996	
Generation of hazardous waste (t)	533,645	932,638	1,634,104	
Import of hazardous wastes (t)	no data	no data	100	
Export of hazardous wastes (t)	no data	no data	115 (1994)	
Area of land contaminated by hazardous waste (km^2)	0.8	1.6	1.6	
Expenditure on hazardous waste treatment (US$)				
Other data				

AGENDA 21 CHAPTER 21: ENVIRONMENTALLY SOUND MANAGEMENT OF SOLID WASTES AND SEWAGE-RELATED ISSUES

NATIONAL PRIORITY:

STATUS REPORT: The Environmental Quality Promotion Act, promulgated in 1992, has been the main framework for integrating Thailand's decentralized domestic waste management scheme into a more systematic approach. Several solid waste management regulations have been promulgated and waste disposal areas have been declared. All hospitals have to separate contaminated wastes from domestic wastes and appropriate waste treatment facilities have been established. Municipalities are encouraged to set up waste management action plans. Areas declared as environmental conservation or pollution control zones are being managed intensively. In 1995, a public enterprise called the "Waste Water Management Organization" was established to run a comprehensive waste water management system in the BMR and other areas designated by the Government.

During the first half of the 7th National Plan, Thailand finished constructing 40 projects, valued at more than 60 billion baht, of domestic waste water treatment plants in priority urban centers. By the year 1998, the BMR will be able to treat 50% of domestic wastewater, and other urban areas will be able to treat 25%. Investment in 45 hospital waste treatment plants is underway.

Thailand has promoted solid waste management efficiency by improving existing solid waste management systems and promoting the private sector's involvement in solid waste management. The BMA has expanded its organic fertilizer plant capacity and contracted the private sector to collect and sanitarily dump solid wastes. The private sector, in cooperation with the Ministry of Industry, operates a pioneer industrial solid waste treatment plant. Another four plants are scheduled by the year 1997. In 1996, 333 hospital contaminated solid waste treatment plants were operational. This number accounts for about 40% of total hospitals in the country.

AGENDA 21 CHAPTER 22: SAFE AND ENVIRONMENTALLY SOUND MANAGEMENT OF RADIOACTIVE WASTES

NATIONAL PRIORITY:	Low	
STATUS REPORT: The waste produced in Thailand is categorized as low level waste and spent radiation sources. The activities of the low level wastes are in the range of 3.7-37 Bg/1 for liquid, and about background level to 20 microsievert per hour for solids. The activities of the spent radiation sources can be considered as high activity waste ranging from a few kilo-becquerel up to some ten gega-becquere per piece. Conditioned waste drums have been kept in temporary storage at the present OAEP site. Since the main radioisotope users are those in the medical sector, most Thai wastes originate from this quarter and are estimated to be 60 percent of total volume of radioactive waste produced annually. Wastes from agriculture and industrial sectors equal less than five percent. The remainder is generated by OAEP. All waste is stored at the place of generation and transported by truck to OAEP. Liquid wastes are predominantly aqueous solutions with low concentrations of salts and small amount of organic liquids. The quantity of untreated waste is approximately 200 cubic meters per year. Raw solid wastes constituting refuse or debris contaminated with radionuclides as well as biological waste are about 45 cubic meters per year. There is also a small volume of the spent radiation sources of Co-60, Kr-85 Sr-90, Cs-137 and Ra-226 sent to OAEP for further handling every year. For liquid waste, a chemical co-precipitation process has been employed. For solid waste after separation, the burnable waste is incinerated and non-burnable waste is packaged in a compactor. Treated waste such as resin is then transferred to a conditioning processor, using cement as a means of deactivation. The spent scaled radiation sources are kept in lead-shielding and packed in high-density concrete containers. The end product in the concrete container is kept in temporary storage at the OAEP site.		

Cross-Sectoral Issues

1. **Decision-Making Structure:** Management of radioactive waste in Thailand is the responsibility of the Office of Atomic Energy for Peace (OAEP), which is the functional arm of the Thai Atomic Energy Commission (Thai AEC) - the policy-making organ of the Government of Thailand on nuclear energy. The Radioactive Waste Management Division (RWMD) serves as the National Waste Management Operating Organization of Thailand.

2. **Capacity-Building/Technology Issues:** No information.

3. **Major Groups:** No information.

4. **Finance:** No information.

5. **Regional/International Cooperation:** Thailand receives assistance from the International Energy Agency (IAEA).

STATISTICAL DATA/INDICATORS

AGENDA 21 CHAPTERS 23-32: MAJOR GROUPS

The role of major groups are also covered under the various chapters of Agenda 21. The following is a summary of main objectives outlined in Agenda 21. Please check the appropriate boxes and describe briefly any important steps or obstacles.

STATUS REPORT ON PARTICIPATION BY MAJOR GROUPS AT THE NATIONAL AND LOCAL LEVELS

Ch. 24: GLOBAL ACTION FOR WOMEN TOWARDS SUSTAINABLE AND EQUITABLE DEVELOPMENT.
The Convention on the Elimination of All Forms of Discrimination Against Women was : No information.

24.a Increasing the proportion of women decision makers : No information.

24.b assessing, reviewing, revising and implementing curricula and other educational material with a view to promoting dissemination of gender-relevant knowledge.
Curricula and educational material : No information.

24.c and 24.d formulating and implementing policies, guidelines, strategies and plans for achievement of equality in all aspects of society including issuing a strategy by year 2000 to eliminate obstacles to full participation of women in sustainable development. Policies/strategies etc : No information.

24.e establishing mechanisms by 1995 to assess implementation and impact of development and environment policies and programmes on women : No information.

Brief comments on this chapter (maximum 100 words) (please, do not exceed this page): Thailand has no discriminatory policies against women. In fact, gender integration is one of the prime objectives of the Thai Government in terms of human resource development and the enhancement of the role of major groups. In its 7th National Plan, Thailand promoted the role of women in social and economic development through the improvement of laws and regulations. Thai women in the public and private sector enjoy maternity leave with pay 60 to 90 days. Women's participation in decision making levels of the public and private sector has increased. Training has been regularly provided to rural women's groups to increase their ability to earn additional non-agricultural income. Policies to strengthen the role of women in sustainable development have been intensified in the 8th National Plan.

Historically, women have held important managerial responsibilities in business and government. Thailand was the first country to be represented by a female Executive Director at the World Bank in the 1960s.

STATUS REPORT ON PARTICIPATION BY MAJOR GROUPS AT THE NATIONAL AND LOCAL LEVELS

Ch. 25: CHILDREN AND YOUTH IN SUSTAINABLE DEVELOPMENT.

25.a establishing processes that promote dialogue between the youth and government at all levels and mechanisms that permit youth access to information and opportunity to present their views on implementing A21 : No information.

Describe their role in the national process: Youth are *ad hoc* participants in the national process.

25.b Youth unemployment in 1992 and 1995 was 4,564,000 and 3,751,000 respectively.

25.c The Government is committed to ensuring that by year 2000 more than 50% of youth -- gender balanced -- have access to appropriate secondary education or vocational training.

Brief comments on this chapter (maximum 100 words) (please, do not exceed this page): Agenda 21 is consistent with the Children and Youth Development goals incorporated in the National Economic and Social Development Plan which aims to develop children and youth to their fullest potential. In this regard, children and youth will be the centre of national development policies. All sectors of society will play an active role in this development in accordance with the principles enshrined in the Convention on the Rights of the Child and the Universal Declaration of Human Rights, which promises full participation of children and youth.

The Department of Public Welfare provides useful services to improve children's growth, such as special courses for children who have low I.Q.s. For environmental services, the Government provides environmental projects such as the Environmental Development Campus in order to let children understand and implement environmental conservation activities.

STATUS REPORT ON PARTICIPATION BY MAJOR GROUPS AT THE NATIONAL AND LOCAL LEVELS

Ch. 26: RECOGNIZING AND STRENGTHENING THE ROLE OF INDIGENOUS PEOPLE AND THEIR COMMUNITIES.

26.a A process has already been established to empower indigenous people and their communities -- through policies and legal instruments.

26.b Indigenous people participate fully in appropriate national processes.

26.c involving indigenous people in resource management strategies and programmes at the national and local level: No information.

Brief comments on this chapter (maximum 100 words) (please, do not exceed this page): Thailand's indigenous people are largely Hilltribe people. At present, programmes for their development are included in the Master Plan of Environmental Community Development as well as drug control projects for mountainous areas. The objectives of these projects are to improve and manage permanent settlements to encourage Hilltribe participation in community development and national resource conservation.

The Master Plan guides government officers. The people participate in operational planning and implementation at the local level.

Thailand's experience has shown that indigenous people and their communities tend to protect their resources effectively when they realize the contribution of the resources to their livelihood, and vice versa. Thailand has increased the role of local communities in resource management in many ways. In many cases, the Government has issued regulations to safeguard resources for the benefit of local communities. The Government encourages NGOs to facilitate and support local communities in the management of resources. The Government also provides training to local communities to optimize their resource utilization.

STATUS REPORT ON PARTICIPATION BY MAJOR GROUPS AT THE NATIONAL AND LOCAL LEVELS

Ch. 27: STRENGTHENING THE ROLE OF NON-GOVERNMENTAL ORGANIZATIONS: PARTNERS FOR SUSTAINABLE DEVELOPMENT.

27.a developing mechanisms that allow NGOs to play their partnership role responsibly and effectively : No information.

27.b reviewing formal procedures and mechanisms to involve NGOs in decision making and implementation : No information.

27.c Mechanisms already exist to allow NGOs to participate in the conception, establishment and evaluation of official mechanisms to review Agenda 21 implementation. NGO inputs are considered important to this process.

27.d establishing a mutually productive dialogue by 1995 at the national level between NGOs and governments : No information.

Brief comments on this chapter (maximum 100 words) (please, do not exceed this page): Major Group organizations participate in national and local environmental impact assessment projects and are involved in the design of national sustainable development policies. During the early stages of formulating both the 7th and 8th Development Plans, regional workshops were convened in various parts of Thailand with representatives from community groups, academia, government offices, and other stakeholders. NGOs and the press are also actively involved in the implementation of national sustainable development projects. A formal mid-term review of implementation of each plan is conducted, including public hearings. Thailand expects to include major group representatives in its 1997 delegation to the CSD, and Habitat II. NGOs and other major groups were represented in delegations to major conferences (e.g. Rio, Cairo, Copenhagen, Beijing, and Istanbul). The Department of Environmental Quality Promotion cooperates closely with a number of NGOs and educational institutions to support major groups. Specific disbursement amounts are not available at this time.

Thailand also collaborates with international NGOs and other international organizations of major groups in national and regional sustainable development programmes (e.g IUCN).

In accordance with the Enhancement and Conservation of National Environmental Quality of 1992, NGOs that have legal status under Thai foreign law and are engaged in activities concerning environmental protection or natural resources conservation are entitled to register with the Ministry of Science, Technology and Environment. By the end of 1996, there were 65 NGOs registered, including 61 Thai and 4 international NGOs. Registered NGOs may request government assistance and support for their activities that are aimed at environmental protection and natural resource conservation.

STATUS REPORT ON PARTICIPATION BY MAJOR GROUPS AT THE NATIONAL AND LOCAL LEVELS

Ch. 28: LOCAL AUTHORITIES' INITIATIVES IN SUPPORT OF AGENDA 21.

28.a encouraging local authorities to implement and monitor programmes that aim to ensure participation of women and youth in local decision making : No information.

Brief comments on this chapter (maximum 100 words) (please, do not exceed this page): Thailand has a Local Authorities project.

Ch. 29: STRENGTHENING THE ROLE OF WORKERS AND THEIR TRADE UNIONS.

29.a full participation of workers in implementation and evaluation of A21 : No information.

29.b The ILO Conventions have been ratified. Workers take part in National Agenda 21 discussions/implementation.

Brief comments on this chapter (maximum 100 words) (please, do not exceed this page): Thailand has ratified two ILO Conventions, excluding Conventions 87 and 98 on Freedom of Association and the Right to Organize. Labour Relations Law of Thailand has recognized the right of labour unions to organize and bargain collectively. So far, Thailand has established and promoted bipartite and tripartite bodies in dealing with safety, health and sustainable development. Bipartite bodies are encouraged to be aware of and deal with working conditions and the environment, though collective agreements are mostly concerned with wages and the welfare benefits of workers. The government has implemented policies and taken measures to reduce occupational injuries and disease with a 2001 target of no more than 26 cases per thousand.

30: STRENGTHENING THE ROLE OF BUSINESS AND INDUSTRY.

30.a There are government policies to increase the efficiency of resource use, including reuse, recycling, and reduction of waste per unit of economic output. Government policies requiring recycling are in place.

30.b encouraging the concept of stewardship in management and use of natural resources by entrepreneurs: No information.

List any actions taken in this area: Among the first initiatives of the Federation of Thai Industries to promote sustainable development, was the launching of the Industrial Environmental Management Programme (currently named as IEM Office) in March 1990, under a cooperative agreement with the United States Agency for International Development (USAID). One of its major objectives was to provide technical assistance to industries in the areas of industrial pollution prevention and control, toxic and hazardous waste management, and worker health and safety. The core of the programme is the promotion of "clean technology" and effective environmental management in Thai industries.

Two examples of projects in this programme are : waste water treatment technology for Electroplating, and Wastewater Control and Minimization in Small and Medium Textile Dyeing and Finishing Industries.

30.c increasing number of enterprises that subscribe to and implement sustainable development policies : No information.

Brief comments on this chapter (maximum 100 words) (please, do not exceed this page): Even though Thailand's economic growth has been rapid and moved the country away from poverty, environmental concerns still require the attention of domestic and international partners. A clear and consistent policy on pollution prevention and a positive regulatory climate may encourage more enterprises to implement pollution prevention. In addition, a Pollution Prevention Fund for small and medium scale industry is expected to serve as a catalyst for moving industry towards a more sustainable pattern of development.

STATUS REPORT ON PARTICIPATION BY MAJOR GROUPS AT THE NATIONAL AND LOCAL LEVELS

Ch. 31: SCIENTIFIC AND TECHNOLOGICAL COMMUNITY.

31.a improving exchange of knowledge and concerns between s&t community and the general public. Scientific community has already established ways in which to address the general public and deal with sustainable development : No information.

31.b developing, improving and promoting international acceptance of codes of practice and guidelines related to science and technology and its role in reconciling environment and development : No information.

Brief comments on this chapter not already described in chapter 35 (maximum 100 words) (please, do not exceed this page): No information.

Ch. 32: STRENGTHENING THE ROLE OF FARMERS.

32.a promoting and encouraging sustainable farming practices and technologies : No information.

32.b developing a policy framework that provides incentives and motivation among farmers for sustainable and efficient farming practices : No information.

32.c enhancing participation of organizations of farmers in design and implementation of sustainable development policies : No information.

Brief comments on this chapter (maximum 100 words) (please, do not exceed this page): No information.

AGENDA 21 CHAPTER 33: FINANCIAL RESOURCES AND MECHANISMS

Financial resources and mechanisms are also covered under each sectoral chapter of Agenda 21 where relevant. This summary highlights broader national financial policies, domestic and external (including ODA)

NATIONAL PRIORITY: **Medium**

STATUS REPORT: As a consequence of UNCED, the RTG Ministry of Finance and the Department of Technical and Economic Cooperation (DTEC) have agreed with ADB, IBRD, UNDP and other development cooperation agencies to give priority to pollution control, natural resources management, urban improvement and similar sustainable development projects. The emphasis on setting up a sustainable development strategy has now become a routine factor in all development cooperation negotiations. Since 1993, the Government of Thailand has received new and additional grant funding for sustainable development from Japan, totalling US $20 million in 1993 and 1994; and loans of $1,750 million in 1993, and $750 million in 1994. This is only a partial listing since records are not yet well organized to distinguish different kinds of assistance. ADB, CIDA, DANCED, GTZ, UNDP, UNEP and the World Bank are among the most active providers of sustainable development funding and technical advisory services.

CHANGES IN NATIONAL BUDGET TO ADDRESS SUSTAINABLE DEVELOPMENT: A budget analysis has been initiated but the details are not yet available. To reflect actual budget figures, further analysis is required.

NEW ECONOMIC INSTRUMENTS: A 7-satang charge (equivalent to a small fraction of one US cent per litre) is levied on all petroleum products and made available to the Energy Conservation Fund. Other fees and pollution charges are under consideration.

ELIMINATION OF ENVIRONMENTALLY UNFRIENDLY SUBSIDIES: The issue will be studied during the next few years.

ODA policy issues
Thailand is a recipient country of ODA.

STATISTICAL DATA/INDICATORS						
	1992	1993	1994	1995	1996	
ODA funding provided or received (Total US$million)						
	Average for 92-93		Average for 94-96			
Net flow of external capital from all sources as % of GDP						
Other data						

AGENDA 21 CHAPTER 34: TRANSFER OF ENVIRONMENTALLY SOUND TECHNOLOGY, COOPERATION AND CAPACITY-BUILDING

Transfer of environmentally sound technology, cooperation and capacity-building is also covered under each sectoral chapter of Agenda 21 where relevant. This summary highlights broader national policies and actions relating to chapter 34.

NATIONAL PRIORITY: **Medium**

STATUS REPORT ON LINKS BETWEEN NATIONAL, REGIONAL AND INTERNATIONAL INFORMATION NETWORKS/SYSTEMS: Sources of information on environmentally sound technologies existing at the national level include the Asian Institute of Technology (AIT), the Federation of Thai Industries (FTI), Industrial Estates Authority of Thailand (IEAT), Industrial Finance Corporation of Thailand (IFCT), the Department of Industrial Works (DIW), the Pollution Control Department (PCD), and trade missions attached to embassies. However, better access to e-mail sources of information at national levels and a central comprehensive and authoritative data bank or clearinghouse, which would include technological alternatives, is needed to improve the quality and accessibility of information on environmentally sound technologies. Regarding the development of basic criteria or general guidelines that may be useful in assessing technology options, NEPO is undertaking a study of labelling and standard setting to conserve energy, which should become a basis of national policy. Joint ventures and other partnerships have been initiated. Buri Juker and Thames Water organized a joint venture to assist IEAT with waste management in all its estates nationwide. To enhance South-South cooperation, ASEAN has an active committee on science and technology, reflecting its interest in obtaining pollution control and other environmentally sound technologies. To increase the amount of foreign direct investment, IFCT manages external financing for the elimination of CFCs. Joint venture companies and investment incentives are actively promoted to handle waste treatment. The evaluation of the impact and effectiveness of government initiatives and policies on the development, transfer and dissemination of environmentally sound technologies is in progress.

MEANS OF IMPLEMENTATION: To establish or strengthen environmentally sound technology centres, USAID has provided assistance to FTI and other agencies. ADB is discussing the possibility of creating an industrial and wastewater treatment technology centre to be managed by PCD. Several countries are involved in technology exhibits at IEAT's headquarters.

• Describe any work being undertaken at the national or local level regarding efforts to promote clean production processes and/or the concepts of eco-efficiency. These processes may include training, preferential financial arrangements, information dissemination and changes in legal or regulatory frameworks.

The National Economic and Social Development Plan (1997-2001) has emphasized the adoption of clean technologies. Both Government and private sectors cooperate to implement the plan by giving high priority to such initiatives in the heavy polluting industries, e.g. tannery, electroplating textile dyeing, pulp mill, palm oil, tuna fish. International agencies and foreign Governments provide both technical and financial assistance.

• Provide information on the adoption of environmental management systems. National reaction to environmental management system standards such as the ISO 14000 Series and others. Please note efforts made at the national level to promote their adoption and the creation of certification infrastructure in order to facilitate access to these standards to local industry.

The Ministry of Industry has established the National Accreditation Council. An ISO 14000 subcommittee under the Council is responsible for ISO 14000 issues. The Thai Industrial Standard Institute is the national body responsible for manufacturing ISO 14000 into the Thai Standard, and acts as a certification body together with the Thailand Environment Institute. There are pilot projects for 20 factories to join the ISO 14000 certification scheme.

• List and describe programs or work under way to facilitate the transfer of ESTs to small and medium sized enterprises. Please note efforts to facilitate access to financial resources and other transfer strategies.

Demonstration Projects on cleaner technology for electroplating, tanneries, palm oil and tuna fish are carried out by DIW with the cooperation of APO, GTZ and DANCED.

1. The Department of Industrial Works, the Ministry of Industry, Pollution Control Department, Office of Environment Policy and Planning, Ministry of Science, Technology and Environment.
2. Federation of Thai Industry, Thailand Environment Institute
3. UNEP, UNIDO
4. GTZ, DANCED, JICA, APO

AGENDA 21 CHAPTER 35: SCIENCE FOR SUSTAINABLE DEVELOPMENT

NATIONAL PRIORITY:	
STATUS REPORT ON NATIONAL SCIENTIFIC KNOWLEDGE, RESEARCH NEEDS AND PRIORITIES: No information.	
STEPS TAKEN TO ENHANCE SCIENTIFIC UNDERSTANDING, IMPROVE LONG TERM SCIENTIFIC ASSESSMENT, BUILDING OF CAPACITY AND CAPABILITY: No information.	

STATISTICAL DATA/INDICATORS			
		Year	
Number of scientists, engineers and technicians engaged in research and experimental development	#	19--	
Total expenditure for research and experimental development (US$eq.)	$	19--	
Other data			

AGENDA 21 CHAPTER 36: PROMOTING EDUCATION, PUBLIC AWARENESS AND TRAINING

NATIONAL PRIORITY: **High**

STATUS REPORT:

a) Reorientation of education towards sustainable development The Department of Environmental Quality Promotion (DEQP), MOSTE, and the Ministry of Education, full members of the National Coordinating Body for Sustainable Development, have developed a national strategy on education. The Departments of Curriculum and Instruction (Ministry of Education) cooperate with DEQP/MOSTE to ensure that environmental topics and sustainable development concepts are included in national curricula at all school levels. There is a single national curriculum which has been reviewed to address environment and development as a cross-cutting issue in vocational schools and at college and university level utilizing a combination of printed material, audio visual tools, special classes, workshops and seminars. Thai schools and Ministries also make increasing use of the Internet. No specific legislation has been enacted to affirm the rights of indigenous people, but special needs of Hilltribe groups have been addressed in programmes initiated by the King and maintained by the Ministry of Social Welfare and Labour and other government agencies.

b) Increasing public awareness The Ministry of Education encourages partnerships, mobilizes resources and assesses the needs of different population groups. Parks have been established and are being expanded to foster environmental awareness. The Thai Government tries to raise public awareness by analyzing local problems.

c) Promoting training The Ministry of Education prepares a National Education Strategy and provides relevant information. Priority areas of action for reorienting education towards sustainable development is the improvement of teacher training programmes. The Ministry of Education has trained teachers, administrators, educational planners, and non-formal educators and reoriented programmes to foster full understanding of sustainable development policies. Training was conducted by inviting experts, arranging workshops and undertaking field studies.

ROLE OF MAJOR GROUPS: The Ministry of Education prepares a National Education Strategy and provides relevant information. Priority areas of action for reorienting education towards sustainable development is the improvement of teacher training programmes. The Ministry of Education has trained teachers, administrators, educational planners, and non-formal educators and reoriented programmes to foster full understanding of sustainable development policies. Training was conducted by inviting resource persons, arranging process workshops and undertaking field studies.

FINANCING AND COST EVALUATION OF THE LABOUR ACTIVITIES: No specific information available.

STATISTICAL DATA/INDICATORS							
	1980	1990	Latest 199-				
Adult literacy rate (%) Male		93.3					
Adult literacy rate (%) Female	90.67	93.82	92.58				
% of primary school children reaching grade 5 (1986-97)	6	6	6				
Mean number of years of schooling	3.35	3.0	3.6				
% of GNP spent on education	88		96 (1992)				
Females per 100 males in secondary school							
Women per 100 men in the labour force							
ENROLMENT OF STUDENTS							
	Primary Level		Secondary Level		Vocational School		University Level	
	Male	Female	Male	Female	M.	F.	M.	F.
1980 (%)	96.25 combined		47.81 combined		–	–	–	–
1990 (%)	93.82 combined		52.45 combined		-	–	–	–
Latest (%)	91.93 combined		55.56 combined		-	–	25.35 combined	

AGENDA 21 CHAPTER 37: NATIONAL MECHANISMS AND INTERNATIONAL COOPERATION FOR CAPACITY-BUILDING IN DEVELOPING COUNTRIES

National capacity building is also covered under sectoral chapters.
Donors: You may wish to describe here how Agenda 21 has influenced your ODA policies in this area.
Developing countries: You may wish to describe any new national mechanisms for capacity building - and any changes in technical cooperation.

NATIONAL PRIORITY:	
STATUS REPORT ON NATIONAL ENDOGENOUS CAPACITY BUILDING: No information.	

AGENDA 21 CHAPTER 38: INTERNATIONAL INSTITUTIONAL ARRANGEMENTS

Ch. 38: Brief summary of any particular UN System response affecting this country/state: To promote international cooperation, regionally and globally, Thailand, as a member of ASEAN, initiated the ASEAN Free Trade Area (AFTA) in 1992. The main objective of the proposal was to promote trade liberalization in the region, an important step to effectively exploit the comparative advantage of the respective countries. ASEAN has targeted a tariff reduction of 16 groups of products to 0.5% by the year 2008. ASEAN cooperation will be enhanced with the recent participation of Viet Nam. Thailand also supports the membership of other countries of the region in ASEAN in order to further strengthen economic cooperation.

Economic cooperation among ASEAN member countries is enhanced by intra-ASEAN investment through the Revised Basic Agreement on ASEAN Industrial Joint Ventures (BAAIJV). The agreement has created several projects, including the ASEAN Potash Mining Project in Thailand and the ASEAN Fertilizer Project in Malaysia.

The fifth ASEAN summit in December 1995 in Thailand has further strengthened cooperation among member countries through trade liberalization. The membership of Viet Nam makes ASEAN the third largest of world economic cooperation groups. There were several considerations in the fifth ASEAN summit, including the Plan of Action in Infrastructure Development, the Plan for the Promotion of Foreign Direct Investment and Intra-ASEAN Investment. ASEAN has agreed to make AFTA effective by the year 2003 for selected sectors such as tourism, telecommunications, finance and banking and for ASEAN industrial cooperation.

Thailand has strongly participated in international forums on economic cooperation as well. To further strengthen economic cooperation in Asia and the Pacific Region, Thailand supports APEC cooperation in economic and social development among the member counties. At the global level, Thailand actively participates in economic cooperation with EU countries as well as North America. In March 1996, Thailand had the privilege of hosting the first summit ever between Asia and Europe, the Asia-Europe Meeting (ASEM). On this historic occasion, the leaders of 25 countries and the European Commission met and discussed a wide range of issues to strengthen the linkages between Asia and Europe. This serves as an important step towards creating closer links between Asia, Europe and North America. Economic and social cooperation will also be enhanced through several proposed activities such as the meeting of ASEAN and European Economic and Finance Ministers in 1997, the proposed establishment of an Asia-Europe Business Forum, and the Asia-Europe Foundation.

AGENDA 21 CHAPTER 39: INTERNATIONAL LEGAL INSTRUMENTS AND MECHANISMS

Ch. 39: International Legal Instruments are covered under the relevant sectoral chapters. This is a listing of major agreements/conventions (not already covered) entered into and relevant to Agenda 21:

- International Convention for the Prevention of Pollution of the Sea by Oil, London, 1954 (as amended on 11 April 1962 and 21 October 1969)
- Agreement Concerning Cooperation in Marine Fishing, Warsaw, 1962
- International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage (as amended), Brussels, 1971
- Convention Concerning the Protection of the World Cultural and Natural Heritage, Paris, 1972
- Convention Concerning the Protection of Workers Against Occupational Hazards in the Working Environment Due to Air Pollution, Noise and Vibration, Geneva, 1977
- Convention on the Conservation of European Wildlife and Natural Habitats, Berne, 1979
- Protocol for the Conservation and Management of the Protected Marine and Coastal Areas of the South-East Pacific, Paipa, 1989
- ASEAN Agreement on the Conservation of Nature and Natural Resources, Kuala Lumpur, 1985
- Joint Protocol Relating to the Application of the Vienna Convention and the Paris Convention, Vienna, 1988
- Agreement on the Network of Aquaculture Centres in Asia and the Pacific, Bangkok 1988
- Convention Concerning Safety in the Use of Chemicals at Work, Geneva, 1990
- Convention on Environmental Impact Assessment in a Transboundary Context, Espoo, 1991
- United Nations Framework Convention on Climate Change, New York, 1992
- Montreal Protocol on Subetances that Deplete the Ozone Layer, Montreal, 1987
- Convention Concerning Occupational Health Services, Geneva, 1985
- Agreement on the Action Plan for the Environmentally Sound Management of the Common Zambezi River System, Harare, 1987
- Convention on the Regulation of Antarctic Mineral Resource Activities, Wellington, 1988
- Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal, Basel, 1989
- Convention on the Prohibition of Fishing with Long Drift Nets in the South Pacific, Wellington, 1989
- International Convention on Salvage, London,, 1989
- Convention on Civil Liability for Damage Caused During Carriage of Dangerous Goods by Road, Rail and Inland Navigation Vessels, Geneva, 1989
- International Convention on Oil Pollution Preparedness, Response and Cooperation, London, 1990

AGENDA 21 CHAPTER 40: INFORMATION FOR DECISION-MAKING

This chapter is also covered under sectoral and other chapters of this profile. The matrix below gives an overview of how national authorities rate the available information for decision making.

Rating of available data and information suitable for decision-making

Agenda 21 Chapters		Very good	Good	Some good data but many gaps	Poor	Remarks
2.	International cooperation and trade			X		
3.	Combating poverty			X		
4.	Changing consumption patterns			X		
5.	Demographic dynamics and sustainability		X			
6.	Human health			X		
7.	Human settlements			X		
8.	Integrating E & D in decision-making			X		
9.	Protection of the atmosphere		X			
10.	Integrated planning and management of land resources			X		
11.	Combating deforestation			X		
12.	Combating desertification and drought			X		
13.	Sustainable mountain development		X			
14.	Sustainable agriculture and rural development		X			
15.	Conservation of biological diversity			X		
16.	Biotechnology		X			
17.	Oceans, seas, coastal areas and their living resources			X		
18.	Freshwater resources		X			
19.	Toxic chemicals		X			
20.	Hazardous wastes		X			
21.	Solid wastes		X			
22.	Radioactive wastes		X			
24.	Women in sustainable development	X				
25.	Children and youth			X		
26.	Indigenous people		X			
27.	Non-governmental organizations		X			
28.	Local authorities			X		
29.	Workers and trade unions				X	
30.	Business and industry		X			
31.	Scientific and technological community				X	
32.	Farmers		X			
33.	Financial resources and mechanisms			X		
34.	Technology, cooperation and capacity-building				X	
35.	Science for sustainable development				X	
36.	Education, public awareness and training			X		
37.	International cooperation for capacity-building			X		
38.	International institutional arrangements		X			
39.	International legal instruments	X				
40.	Information for decision-making			X		

Additional Comments

The Thai Government has no programme to develop or use sustainable development indicators at national, regional, or local levels. The topic is under consideration and will be addressed within the next few years after international expert panels have made their recommendations to select appropriate indicators for Thailand. OEPP will be kept informed of the progress of international studies under CSD sponsorship. There are no major groups involved in the progress of developing indicators of sustainable development, but Thailand Environment Institute (TEI) is interested in the topic and keeps its business and NGO associates informed. Regarding the CSD process of developing indicators contributing to any national level processes, Thailand is awaiting practical conclusions of the CSD's ongoing studies. There has been no effort to establish an overall policy, or framework, on information at the national level by integrating environment and development information. Thailand expects to develop this during the 8th Plan period (1997-2001).

In Thailand, sustainable development indicators are still in the early stages of development. However, some socio-economic and environmental indicators have been generally used as key components of a reporting system on the state of the environment; for example, as guidelines to monitor policy/project development, and as a tool for integrating environmental concerns in sectoral policies. In addition, the state of environment report has been used as one of the Government's major tools for formulating sustainable development policies, measures and projects.

The indicators for the state of environment report will be improved in order to provide a basis for international cooperation with government agencies.

STATISTICAL DATA/INDICATORS

	1980	1993	Latest 199-	
Number of telephones in use per 100 inhabitants	2.1	3.7		
Other data				